

Long Range Transportation Plan Executive Summary



The Kingsport Metropolitan Transportation Planning Organization (MTPO)

june 2012

Introduction



The importance of a quality transportation system can be seen throughout the history of the Kingsport region. With a waterway system that once served as the lifeline of commerce to and from the area over the last two centuries, this system has been replaced by a network of streets, highways, interstates, railroads, and an airport that now moves all people and goods.



Regional Transportation Planning


While planning in Kingsport dates back to the early 1900s, regional transportation planning did not emerge until the 1970s. Since that time local, state, and federal agencies have taken a coordinated, cooperative, comprehensive approach to planning and providing transportation solutions within the Kingsport region.

What is the 2035 Long Range Transportation Plan?

The Kingsport Metropolitan Transportation Planning Organization (MTPO) is the governing entity that is charged with carrying out the transportation planning process for the Kingsport Urbanized Area. The planning area of the Kingsport MTPO consists of the cities of Kingsport, Mount Carmel, and Church Hill, Tennessee; Weber City and Gate City, Virginia; and portions of Hawkins County, Sullivan County, and Washington County Tennessee as well as portions of Scott County, Virginia.

The 2035 LRTP is an important document for the region as only projects identified in the Plan are eligible for federal and state transportation funding.

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Federal legislation provides the guiding framework that governs the transportation planning process for all metropolitan planning organizations. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005 requires that each metropolitan planning organization develop a transportation plan with at least a 20-year horizon of both long-range and short-range strategies/actions that lead to the development of an integrated multimodal transportation system to facilitate the safe and efficient movement of people and goods in addressing current and future transportation demand.

The 2035 LRTP for the Kingsport MTPO area reflects compliance of the federal requirements of SAFETEA-LU as well as other federal requirements. Throughout the 2035 LRTP, data and analysis are presented illustrating consideration of and compliance with these requirements.

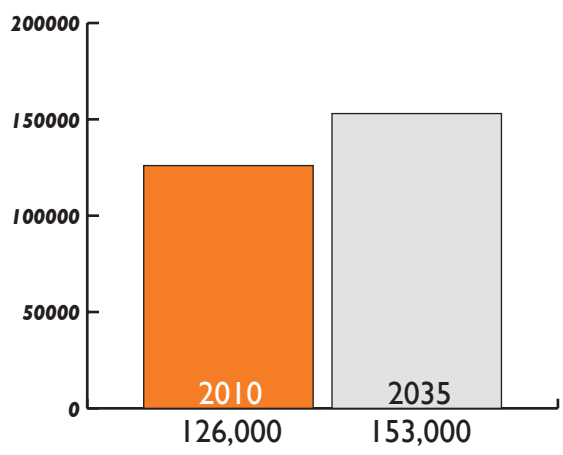
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Regional Trends



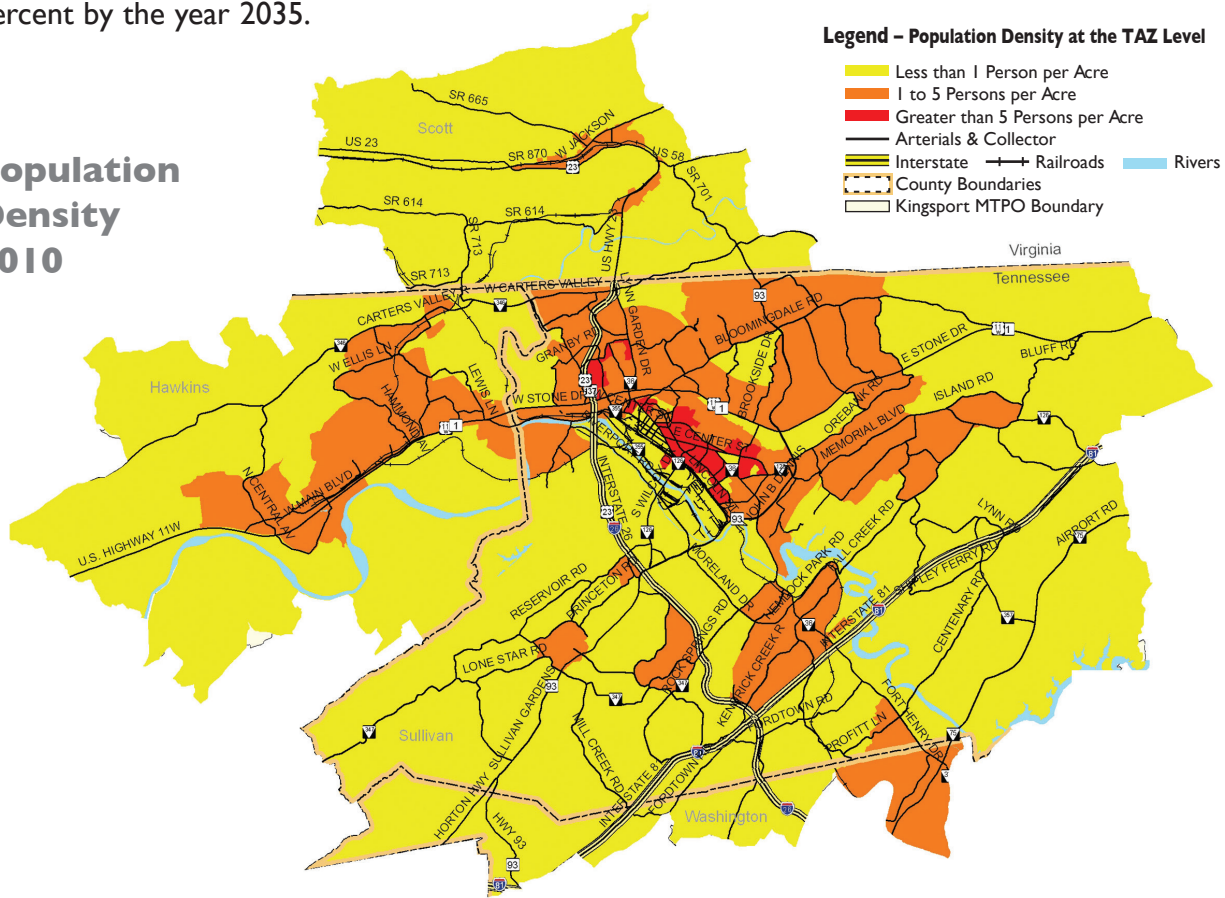
Since the 1970s, when the Kingsport area was first designated by the federal government as a metropolitan area, the region has experienced steady population and employment growth and has seen a shift in its employment base from heavily manufacturing to one of medical, service, and retail. Another change in the region has been an increase in the percent of persons over the age of 65. In the 1970s less than 10 percent of the population was over 65 years of age. Today, nearly 16 percent of the population is over the age of 65 and that trend is projected to increase to nearly 30 percent by the year 2035.

POPULATION

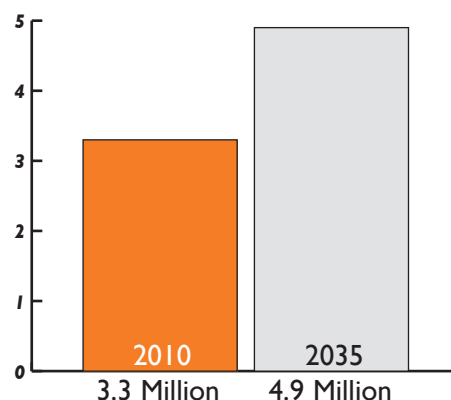


21% Increase over 25 years

Population Density 2010

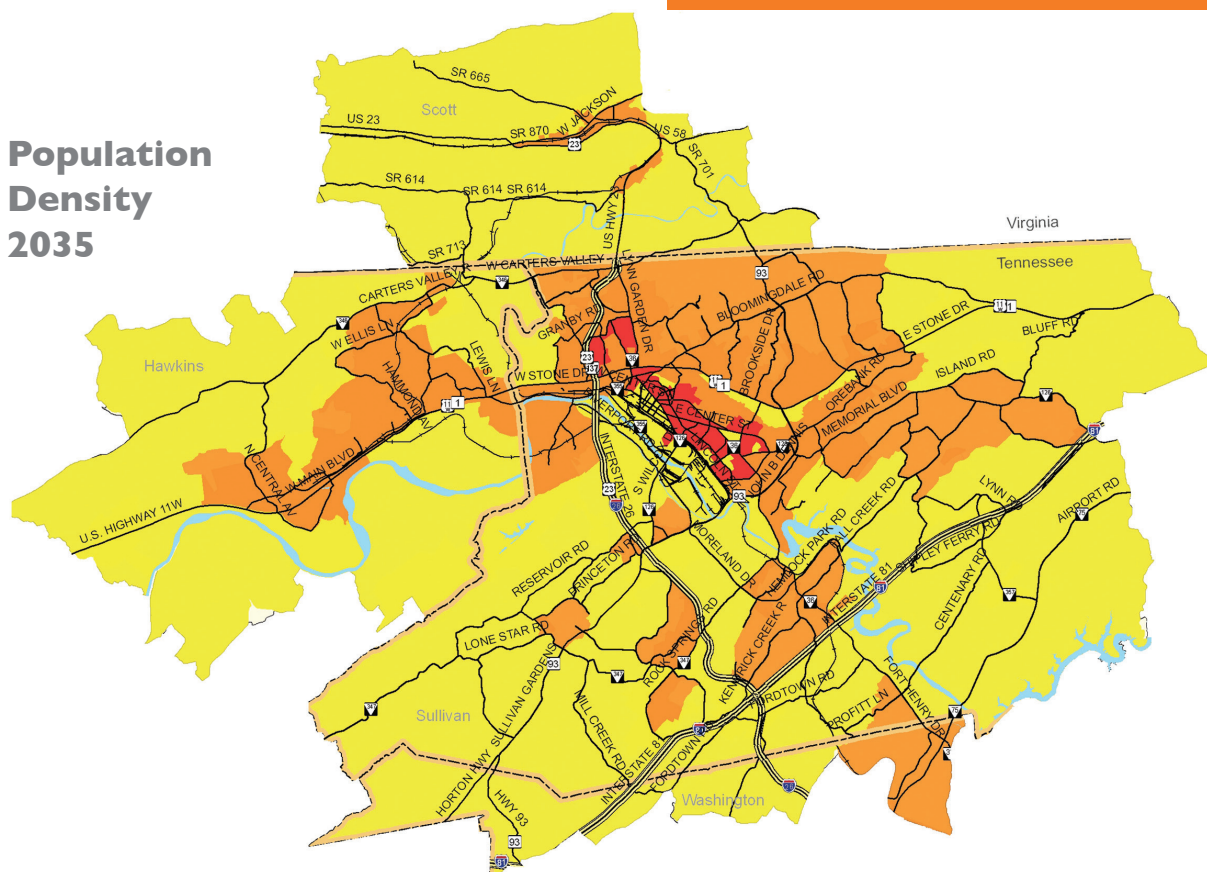


The MTPO area has seen and is projected to see positive population and employment growth over the next 20-plus years. The MTPO area is forecast to add approximately 27,000 people by 2035 and grow to nearly 153,000 people. That is a 21 percent increase in population.

VEHICLE MILES TRAVELED (per day)

One result of the projected increase in population growth is a 45% increase in Vehicle Miles Traveled over the next 25 years

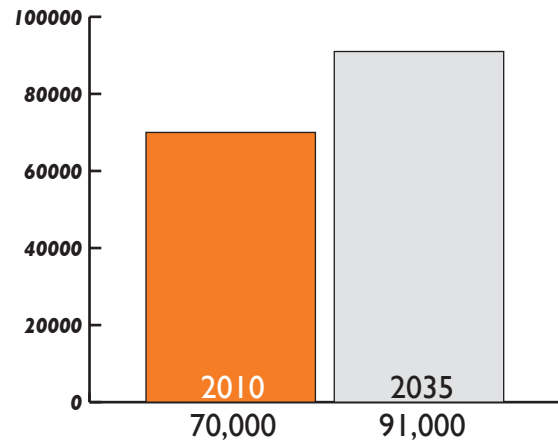
Population Density 2035



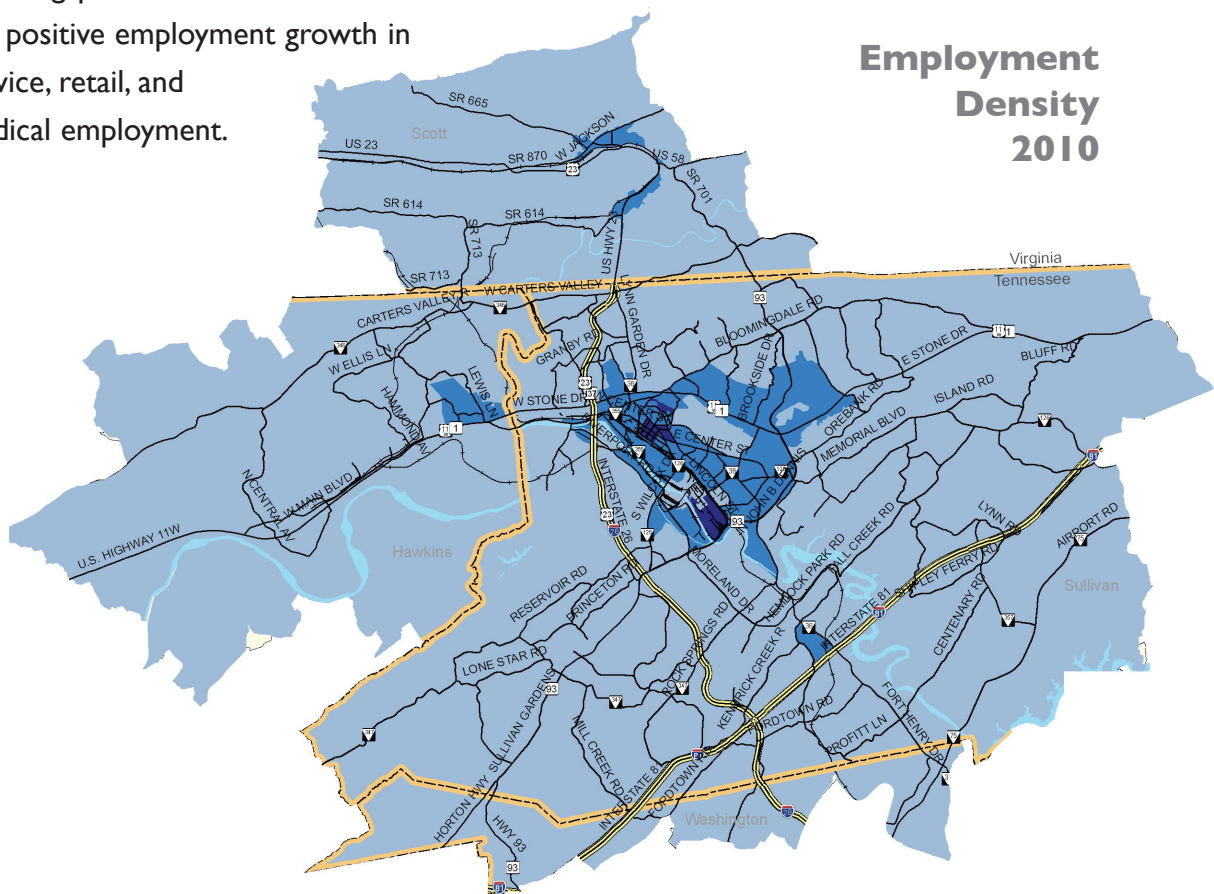
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Employment conditions within the MTPO area, much like in many communities in the southeast, has seen dramatic changes over the last several decades relative to the number and types of jobs, which make up the local economy. In the 1970s the employment of the region was largely dominated by manufacturing jobs but like the rest of the US, the region has seen a tapering in manufacturing employment since that time. While manufacturing is no longer the leading employment sector in the region, the Kingsport MTPO area has continued to see positive employment growth in service, retail, and medical employment.

EMPLOYMENT

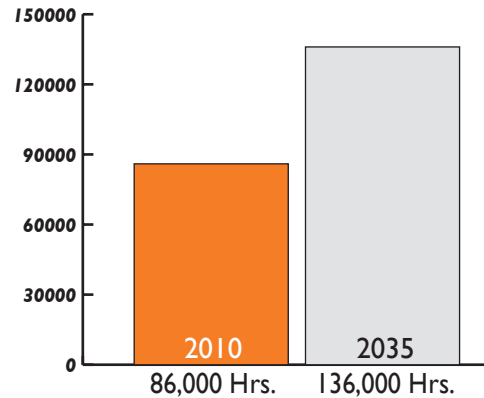


29% Increase over 25 years



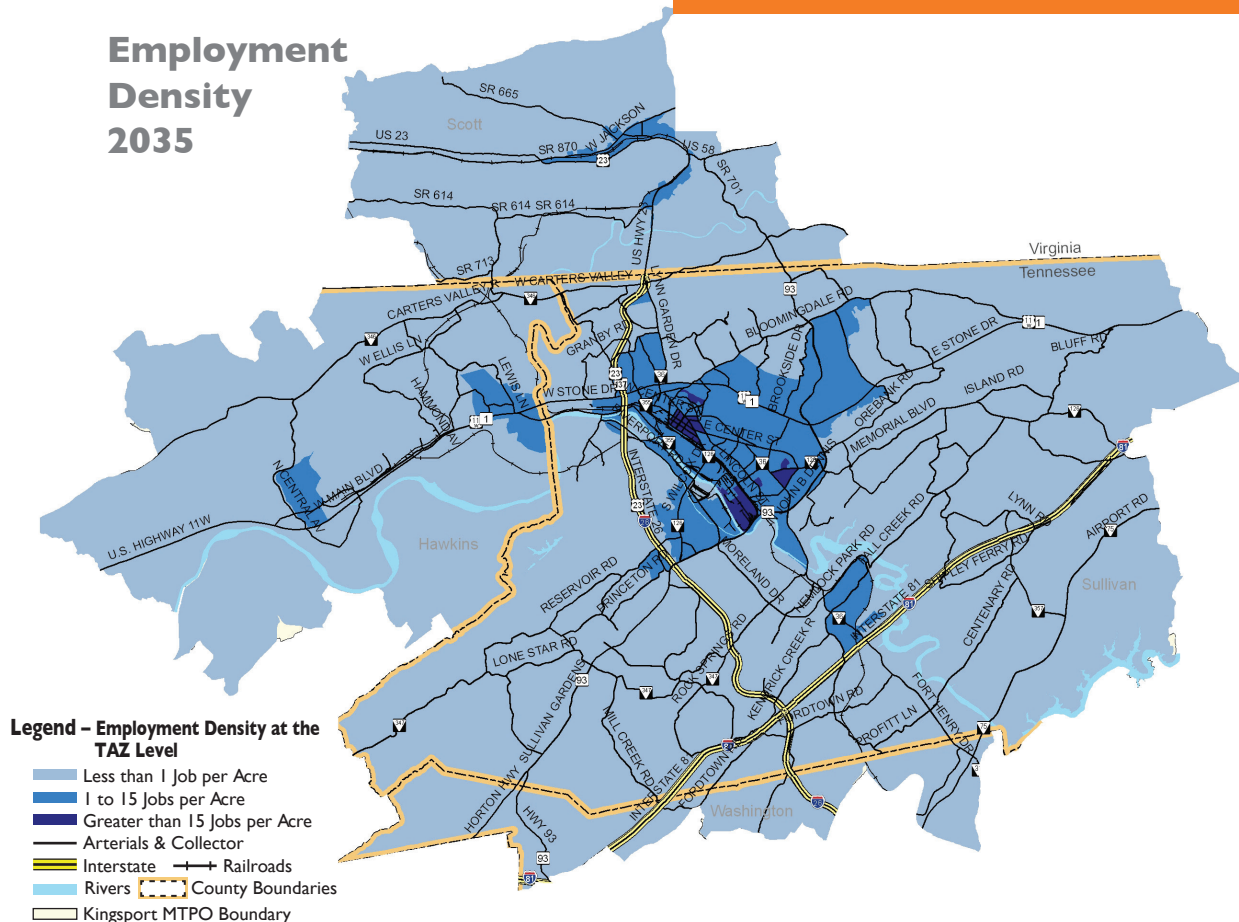
This projected increase in population and employment will not only require the need for additional roadway capacity (both in terms of new roads and improvements to existing roads) but will also create greater demand for public transportation services and walking and bicycle facilities, which may not currently exist in certain areas of the region.

VEHICLE HOURS TRAVELED (per day)



One result of the projected increase in employment growth is a 58% increase in Vehicle Miles Traveled over the next 25 years

Employment Density 2035



Public Participation



Public input has played a critical role in the development of the 2035 LRTP. The primary means of involvement consisted of public meetings and presentations, the use of an online survey, project website, and media outreach.

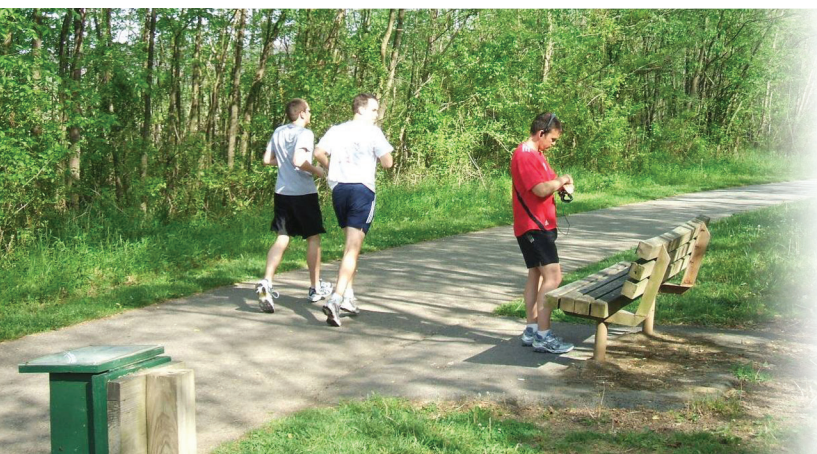
Public Meetings

In developing the 2035 LRTP a number of public meetings and presentations were conducted throughout the region in which the public was invited to share their thoughts on needed transportation improvements. At one of the public meetings participants in attendance called for increased emphasis on highway safety, greater consideration of walking and biking facilities as well as transit services, and the need to address traffic operational issues at known high volume locations.



Events & Opportunities

In addition to normal MTPO Board meetings other venues were used to share information about the development of the 2035 LRTP and the MTPO's planning process. One such outreach by the MTPO was regular participation in Kingsport's Pioneering Healthier Communities initiative a consortium of public and private leaders and citizens within the Kingsport region focused on quality of life and active transportation solutions.



Project Website and Online Survey

A Plan website (www.myregionmoves.com) was created to share information on the development of the 2035 LRTP and to solicit public input on needed transportation improvements. In conjunction with the website an online survey was created which afforded individuals an additional opportunity to share their thoughts and opinions on transportation needs within the region.

Key Survey Findings

- Over 80% of the respondents feel congestion on roadways in the region has become worse in the last five years
- More transportation choices ranked 2nd to safety as a top priority
- Making streets a place for all users & greater opportunities for non-motorized travel topped the list of importance in transportation in the region
- Providing more facilities, better maintenance of facilities, & improved connections topped the list in increasing walking & biking in the region



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Regional Goals



The 2035 LRTP was developed based on three guiding goals for the region.

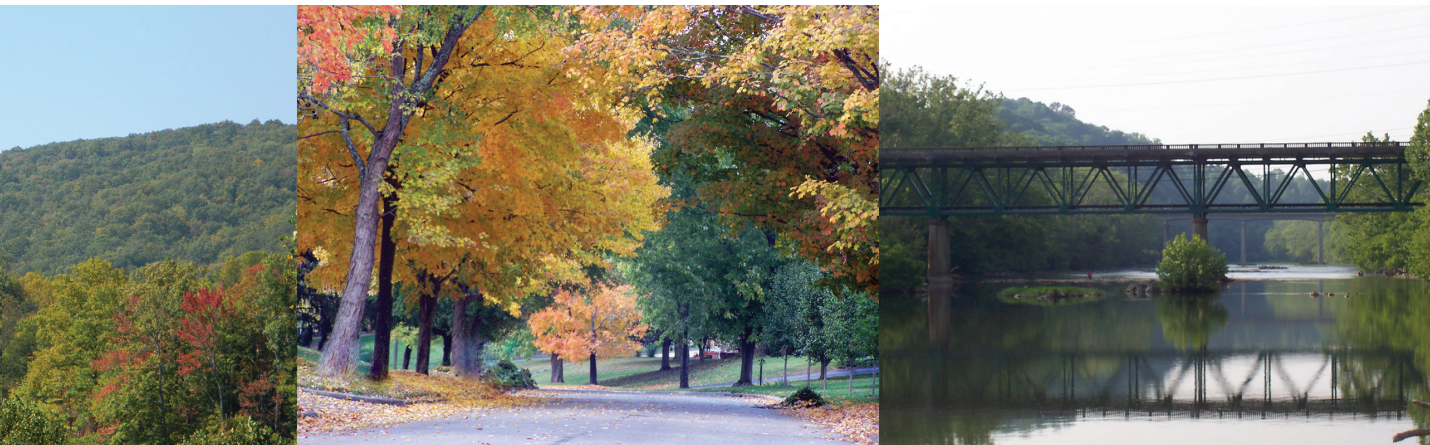
Livability

Provide safe, secure, convenient, and active transportation choices to all citizens which strengthens the livability and health of our communities and region.

Safety – Motor vehicle crashes are the leading cause of death among Americans under the age of 35. Annually throughout the US over 30,000 individuals lose their life in traffic crashes. In the region an average of 15 vehicular crashes a day occur with one fatal crash occurring on average once every two weeks. Improving highway safety for all roadway users is a top priority for the MTPO.

The 2035 LRTP allocates nearly a third of the region's transportation dollars toward roadway safety improvements.

Active Transportation – The link between lack of physical activity and chronic disease is undeniable. The design of the built environment can either promote or inhibit the opportunities for physical activity and our transportation system is vital in this equation. In 2009, Tennessee adults and children ranked among the highest in overweight and obesity in the nation with over two-thirds of adults (69%) in Tennessee considered overweight or obese. The 2035 LRTP establishes a bold commitment to active transportation investments in the region promoting greater opportunities for walking, biking, and transit services.



Sustainability

Promote and advance sustainable transportation choices for the greater Kingsport Region that support long-term economic, social, and environmental sustainability within and throughout the region.

Operational Solutions – Roadway congestion is going to increase over time as the region grows. As a sustainable transportation solution, the 2035 LRTP allocates a considerable amount of funding toward cost-effective management solutions and new technologies as a means of addressing congestion, reducing transportation delay, and improving system operations.

Prosperity

Promote transportation policies and investments that advance quality economic development and redevelopment, economic competitiveness, and increased access to people, places, and goods and services within and throughout the region.

Roadways – The region is fortunate to have a number of roadways that provide quality access to neighborhoods, jobs, and commerce. To remain economically competitive and to ensure other community development and redevelopment initiatives are achieved, strategic investments in roadway improvements will play an important part in the region's success. The 2035 LRTP provides a range of solid roadway investments highly supportive of a prosperous region.



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Public Transportation – A variety of public transportation services are offered throughout the Kingsport MTPO area. These services range from fixed-route services in the City of Kingsport to flexible, demand-response service in the rural portions of the MTPO area as well as national intercity bus services via Greyhound. The 2035 LRTP recognizes the importance of public transportation services to residents, the business community, and the local economy.

Freight – Locally, regionally, and globally freight transportation demand is growing. The Kingsport Region is projected to see a near doubling in goods transported to and from the region in the next two decades. Truck, rail, and air transport will continue to play an ever growing role in transporting commodities. The 2035 LRTP places an emphasis on transportation investments that support freight transportation.



In moving the region closer to its intended goals the MTPO will:

- Improve safety by reducing transportation-related fatalities and injuries
- Make streets a place for all users - “Complete Streets”
- Increase opportunities for short trips to be made by non-motorized modes to promote active transportation
- Increase transit and other transportation demand management opportunities
- Strive to balance capacity and mobility needs for all users whereby connections to and across modes and land uses function harmoniously
- Maintain what we have – take a “state of good repair” approach to our community’s transportation assets
- Seek cost-effective management solutions and new technologies as a means of addressing congestion, reducing transportation delay, and improving system operations
- Seek improvement options which minimize adverse impacts to historical, social, cultural, and natural environments
- Promote investment solutions that reduce carbon and other harmful emissions from transportation



- Strategically target transportation investments to areas supportive and conducive to growth and redevelopment initiatives
- Support transportation investments and policies that work to create jobs and improve access to people, places, and goods while embracing access management and corridor management strategies that preserve the long-term functionality of a roadway’s capacity and safety
- Support land use and development patterns that reduce transportation costs and expenditures for all
- Continue to promote and foster an environment by which citizens, communities, jurisdictions, elected officials, and other stakeholders can collaboratively advance a sustainable multimodal transportation system that provides safe and secure connections throughout a livable and prosperous region

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environmental impacts, potential mitigation measures, and/or avoidance alternatives as the project moves from the planning stage of the 2035 LRTP to the project development and programming stage (e.g. the Transportation Improvement Program - TIP) for ultimate project implementation.

Based on available information, the MTPO utilized its Geographic Information System

(GIS) to map locations of known wetlands, flood zones, karst topography, historic sites, and historic districts within the MTPO planning boundary. By identifying sensitive areas in advance, this effort will help to improve avoidance measures and natural resource mitigation activities to provide greater benefits to the environment regionally.



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How are projects ultimately funded?

Implementation of project recommendations from the 2035 LRTP occurs through the programming of transportation improvements on an annual and semi-annual basis. For projects within the MTPO area that are

federally or state funded, the MTPO, in consultation with the appropriate city, county, and state transportation agency determines which projects are to be advanced from the 2035 LRTP into the MTPO's four-year transportation improvement program (TIP). Funds are allocated to the project once it is included in the TIP, then the project is undertaken.



Funding & Costs



The ability to maintain, improve, and enhance transportation facilities and services in the MTPO area depends on adequate financial resources. Funding for transportation facilities and services comes from a variety of sources – federal, state, local, and private.

Revenue forecasts were developed for streets and highways and public transit based on historical and existing funding levels and anticipated inflationary factors. Historic funding trends for streets and highways operations and maintenance and capital investments from current funding sources indicate an availability of \$816 million for operating/maintenance funds and \$413 million for capital investments over the planning horizon. Historic funding trends for transit operating assistance and capital investments from all transit related funding sources indicate an availability of \$53 million for operating assistance and \$25 million for capital investments over the planning horizon.

Taking a program initiative approach, projects were evaluated and fiscal considerations were applied. From this assessment, a Cost Feasible 2035 LRTP was developed. The 2035 LRTP includes 50 specific transportation project

improvements, 3 project groupings (funding programs), and funds for the Kingsport area's transit needs. In addition to these capital improvements the 2035 LRTP forecasted needed operation and maintenance costs and accounted for necessary funding for continued maintenance of the transportation system including transit operations.

Significant aspects of the 2035 LRTP include funding for:

- 13 Safety Projects (\$62 Million)
- 22 TSM Projects (e.g. improvements to intersections, signals, interchanges, & ITS) (\$58 Million)
- 15 Economic Development & Access to Jobs Road Projects (e.g. new roadways, road widenings, roadway reconstruction) (\$186 Million)
- Bridge Program which provides funds for needed bridge improvements (\$23 Million)



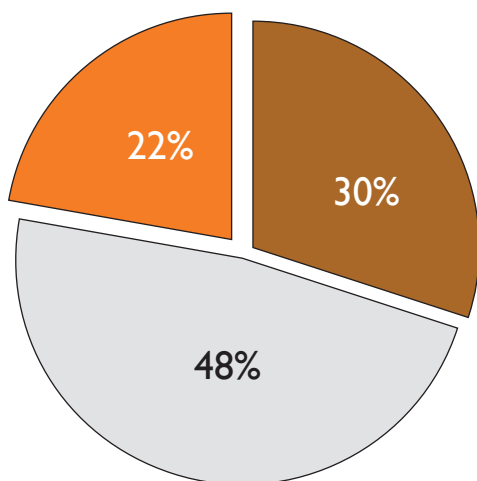
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- Safety/TSM/ITS Program which provides funds for additional safety/operational projects (\$7 Million)
- Active Transportation Program which provides funds for walking and biking projects (\$77 Million)
- Transit Program which provides funds for transit capital needs (\$17 Million)

- Continued Maintenance & Operations which provides funds for maintaining roadways in the region (\$816 Million) as well as operating assistance for transit (\$53 Million)

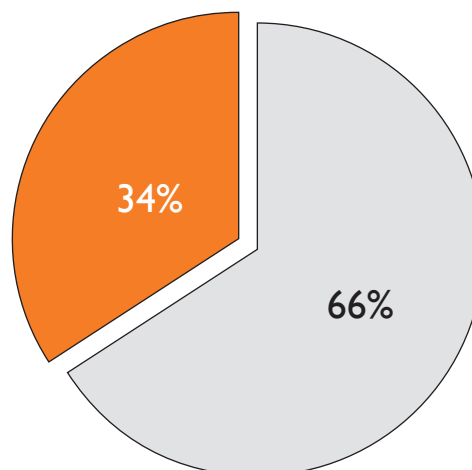
The 2035 LRTP successfully meets the program targets that the MTPO established and provides a full range of recommendations that address existing and future transportation needs.

Implementation of the Plan results in the following funding levels for future capital transportation improvements:



Safety & TSM/ITS Solutions – 30%
Capacity Improvements and Economic Development & Access to Jobs – 48%
Active Transportation – 22%

2035 Transportation Plan Budget



Maintenance & Operations - 66%
Capital Improvements 34%

Program Initiative

To create a stronger link between the stated goals and objectives of the 2035 LRTP and transportation improvements ultimately selected for funding, a program approach to funding transportation improvements was established by the MTPO. These program initiatives and targeted funding levels include:

Safety & TSM/ITS Solutions (28-30%)

Projects under this category are intended to address highway safety improvement needs and traffic operational deficiencies solved through transportation system management (TSM) and intelligent transportation system (ITS) solutions.

Capacity Improvements (22-26%)

Projects under this category are intended to address existing and/or proposed highway capacity needs through roadway widening and/

or the construction of new roadways. Capacity improvements are intended to address system failures and/or increase the overall system operations through new and expanded roadways.

Economic Development & Access to Jobs (22-26%)

Projects under this category are intended to promote investments in the region's economy and jobs through increased transportation system capacity and access.

Active Transportation (18-28%)

Projects under this category are intended to promote active transportation solutions. Active transportation solutions are investments that support greater travel and trip making by non-motorized modes (e.g. walking and biking) as well as transit.

- Operating and maintaining existing infrastructure is a sizable portion of the overall transportation budget accounting for nearly two-thirds of funds available for streets and highways
- 61 percent of operation and maintenance expenses are funded with local dollars
- 65 percent of transportation capital improvements in the region are funded with federal dollars
- The region has over \$572 million in un-funded transportation needs beyond the \$413 million identified in the cost feasible 2035 LRTP

Recommended Improvements



The following presents the recommended planned improvements for the Kingsport MTPO area over the next 20-plus years as part of the 2035 LRTP. Needed transportation improvements were identified based on a review of previous planning efforts, agency involvement, citizen and stakeholder input, and results from the MTPO's regional travel demand model. Each transportation recommendation was evaluated based on the MTPO's established 2035 LRTP project selection criteria and balanced against the MTPO's projected financial revenue availability.

Projects Underway

- Gibson Mill Rd (Phase V) from Gibson St to Watauga St Reconstruct to 2/3 Lanes
- I-26 Tennessee Welcome Center
- I-81 Eastbound Truck Climbing Lane at Mile Marker 60 to Exit 63
- Netherland Inn Rd Realignment of Union St from US-11W to Netherland Inn Rd
- Rock Springs Rd from Edinburgh Channel Rd to Cox Hollow Dr Safety & Multi-Use Path
- Moccasin Gap Bypass Improvements
- SR-1 at Main St / Hammond Ave Signalization & Geometric Improvements
- SR-126 (Memorial Blvd) from East Center St to Cooks Valley Rd Widening from 2 Lanes to 4 Lanes
- SR-75 from SR-36 to SR-357 Widening from 2 Lanes to 5 Lanes

- SR-93 (Sullivan Gardens Pkwy) from I-81 to SR-347 Safety Improvements Along Corridor
- US-23 Over North Fork Holston River Bridge Replacement
- US-23, SR-224 & US-58 (Moccasin Gap Bypass) New Interchange

Planned Projects

By 2015

- Eastern Star Rd - Reconstruct to 3 lanes (14-TC)
- Fort Henry Drive (SR 36) - Improve intersections and coordinate signal timings (16-TSTI & 17-TSTI)
- Gate City Hwy (US 23) - Intersection and signalization improvements (1-VSTI)
- Lincoln St/MLK Jr Dr Connector - Extend Lincoln St/MLK Jr Dr to Industry Dr (17-TC)
- Memorial Blvd (SR 126) - Reconstruct to 2 lanes and widen shoulders (36-TSTI)
- Mitchell Rd Connector - Construct new 3 lane roadway (Fordtown Rd to Eastern Star) (19-TC)
- Netherland Inn Rd - Reconstruct to 3 lanes (9-TC)
- Rock Springs Rd - Reconstruct to 3 lanes (11-TC)
- Stone Dr East (US 11W/SR 1) - Extend left turn lane under John B Dennis Hwy (SR 93) (5-TSTI)
- Stone Dr East (US 11W/SR 1) - Improve intersections & coordinate signals (4-TSTI, 14-TSTI & 15-TSTI)
- Sullivan St West - Reconstruct to 3 lanes (13-TC)
- Tri-Cities Crossing - Reconstruct to 3 lanes (15-TC)
- Wadlow Gap Rd (SR 224) - Pave gravel shoulders; provide safety & geometric improvements (3-VC)
- Wadlow Gap Rd (SR 224) - Reconstruct to extend turn lanes (2-VSTI)

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2016-2025

Airport Pkwy (SR 357) - Improve intersections at Jericho Dr, Flagship Dr, & NE Business Park (1-TSTI)

Bloomingtondale Pk - Reconstruct to 3 lanes (40-TSTI)

Center St (SR 355) - Reconstruct center turn lane (6-TSTI)

Fort Henry Drive (SR 36) - Improve turning movements and widen shoulders (38-TSTI)

Gravelly Rd - Safety/geometric improvements including widening shoulders (24-TSTI)

Independence Ave - Add turning lanes at various intersections and widen shoulders (9-TSTI)

Kendricks Creek Rd - Safety/geometric improvements including widening shoulders (28-TSTI)

Lynn Garden Dr (SR 36) - Intersection and signalization improvements (7-TSTI)

Main St - Improve intersections and coordinate signal timings (11-TSTI)

Memorial Blvd (SR 126) - Reconstruct to 3 lanes (8-TC)

Sevier Ave - Add turning lanes at various intersections (13-TSTI)

Summerville Rd - Safety/geometric improvements including widening shoulders (31-TSTI)

US 11W/SR 1 - Install new traffic signal at appropriate location and improve geometrics (3-TSTI)

US 58/US 421 - Reconstruct to 3 lanes (1-VC)

2026-2035

Bell Ridge Dr - Safety/geometric improvements including widening shoulders (26-TSTI)

Carters Valley Rd East (SR 704) - Safety/geometric improvements including widening shoulders (4-VSTI)

Fairview Ave - Safety/geometric improvements including widening shoulders (22-TSTI)

Fall Creek Rd - Install left turn lanes at Petty John Rd, Emory Church Rd, & Colonial Heights Rd (8-TSTI)

Fort Henry Drive (SR 36) - Widen to 4/5 lanes (22-TC)

Granby Rd Extension - Extend Granby Dr from Stone Dr to Fort Robinson Dr (26-TC)

Jackson St East (SR 71) - Reconstruct to 3 lanes (2-VC)

Lebanon Rd - Reconstruct to extend turn lanes (10-TSTI)

May Ave - Safety/geometric improvements including widening shoulders (33-TSTI)

Orebank Rd - Add turning lanes at various intersections and widen shoulders (12-TSTI)

Reservoir Rd - Reconstruct to 3 lanes (10-TC)

Riverport Rd - Reconstruct to 2 lanes and widen shoulders (possible relocation of roadway) (34-TSTI)

Rock Springs Dr (SR 347) - Safety/geometric improvements including widening shoulders (30-TSTI)

Stone Dr West (US 11W/SR 1) - Widen to 6 lanes (4-TC)

Tranbarger Dr - Safety/geometric improvements including widening shoulders (32-TSTI)

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US 11W/SR 1 - Install new traffic signal at Volunteer High School (19-TSTI)

Wadlow Gap Rd (SR 224) - Construct a roundabout at SR 224/US 58/US 421 (3-VSTI)

In addition to the above projects there are four projects which provide funding in each of the three planning horizons:

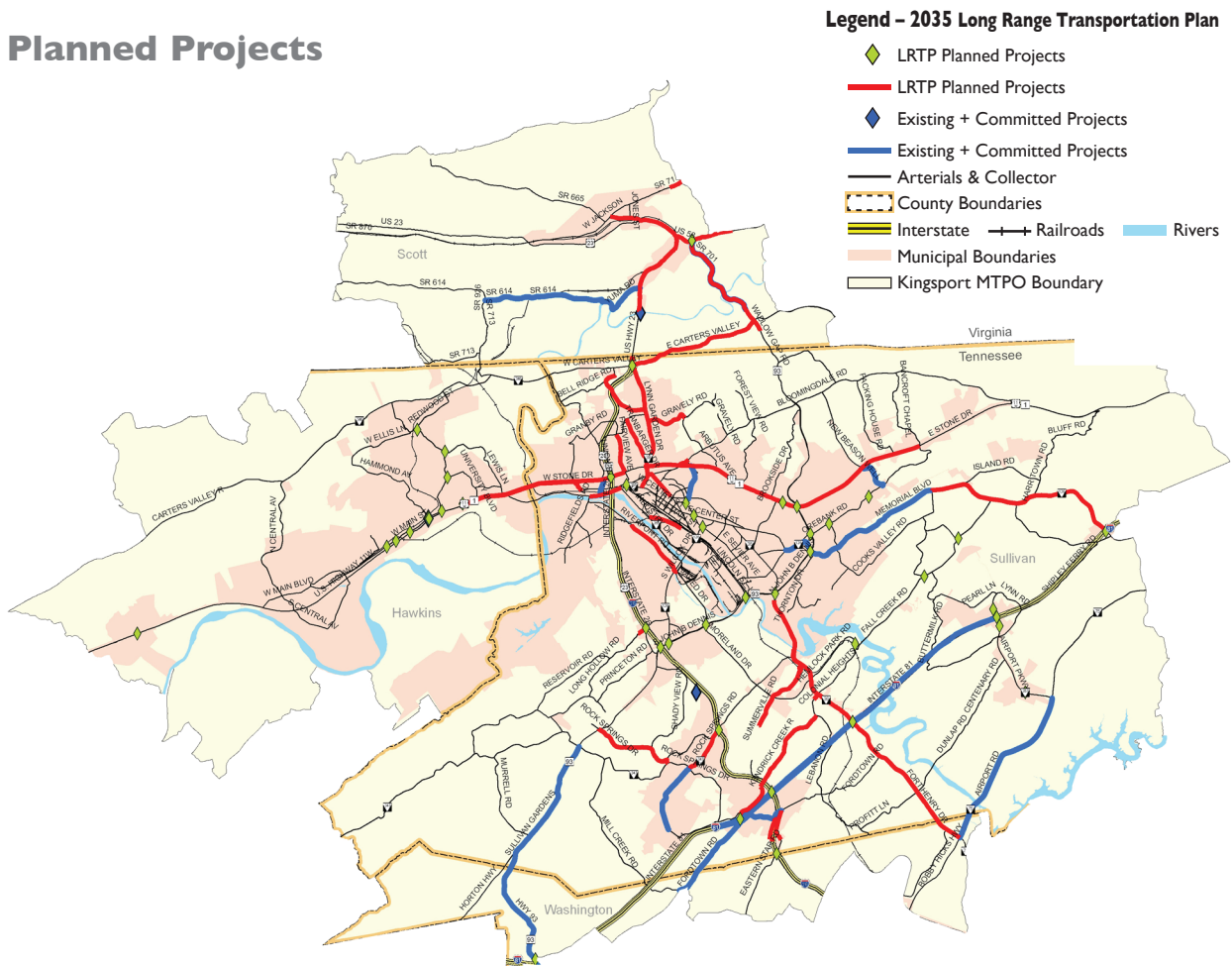
Bridge Improvements – Bridge replacement/bridge rehabilitation projects region-wide (39-TSTI & 6-VSTI)

Interstate 81 & Interstate 26 - Interchange Improvements region-wide (18-TSTI)

John B Dennis Hwy (SR 93) - Reconstruct intersections/interchanges and upgrade signals (2-TSTI)

Safety/TSM/ITS Improvements - Various intersection and other traffic operational improvements including ITS projects region-wide (20-TSTI & 5-VSTI)

Planned Projects



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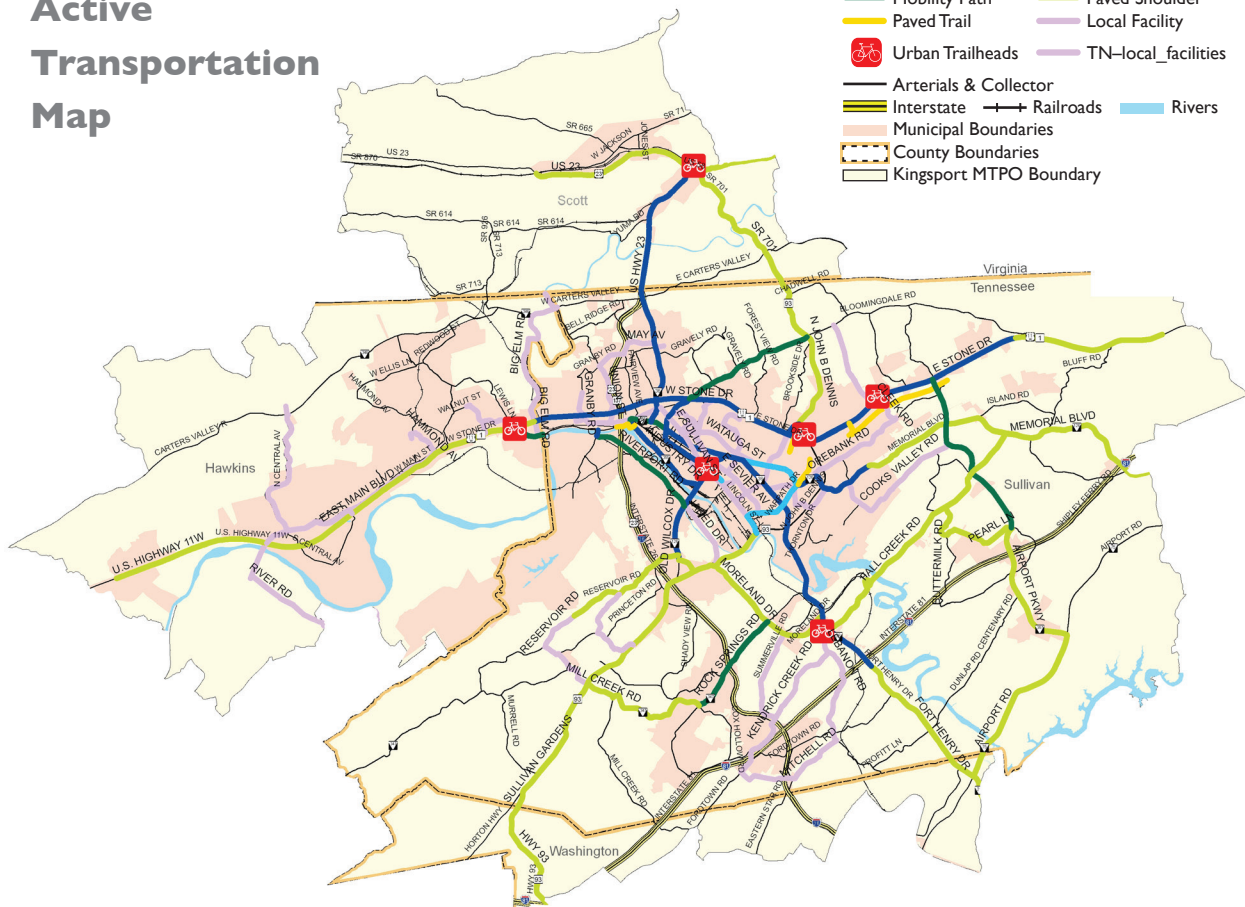


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Did you know?

The Kingsport MTPO area is over 286 square miles straddling two states and encompassing all or part of five municipalities and 3 counties.

Active Transportation Map



Collaboration

In addition to public input, the development of the 2035 LRTP was a collaborative effort of numerous stakeholders from local and regional planning agencies, transit operators, and various state and federal agencies.

Agency Participants

- City of Church Hill, TN
- City of Kingsport, TN
- Federal Transit Administration
- First Tennessee Development District
- First Tennessee Rural Planning Organization
- Gate City, VA
- Hawkins County, TN
- Kingsport Area Transit Service
- LENOWISCO Virginia Planning District Commission
- Mountain Empire Older Citizens Agency
- National Park Service
- Northeast Tennessee Transit System
- Scott County, VA
- Sullivan County, TN
- Tennessee Department of Economic and Community Development
- Tennessee Department of Environment and Conservation
- Tennessee Department of Transportation
- Tennessee State Historic Preservation Office
- Tennessee Wildlife Resource Agency
- Town of Mount Carmel, TN
- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service
- US Forest Service
- Virginia Department of Conservation & Recreation
- Virginia Department of Environmental Quality
- Virginia Department of Forestry
- Virginia Department of Game & Inland Fisheries
- Virginia Department of Transportation
- Virginia Marine Resources Commission
- Washington County, TN
- Weber City, VA



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